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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of:

BOYER, Frank

Examiner: Stephen Johnson

Appln. No. 10/800,403

Art Unit: 3641

Filed: 12 March 2004

For: SHOTGUN CHOKE WITH INTEGRAL WAD-STOPPING FEATURE

* * * * *

May 19, 2006

APPEAL BRIEF

Hon. Commissioner of Patents
and Trademarks
Washington, D.C. 20231

Sir:

This is an Appeal from the final rejection of Claim 3 of the subject application. No claims stand allowed.

REAL PARTY IN INTEREST

The real party in interest is the inventor, Frank Boyer, 11330 Wildberry Court
Glen Rock, PA 17327.

RELATED APPEALS AND INTERFERENCES

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Appellant avers that there are no other prior or pending appeals, interferences or judicial proceedings known to appellant, the appellant's legal representative, or assignee which may be

related to, directly affect or be directly affected by or have a bearing on the Board's decision in this pending appeal.

STATUS OF CLAIMS

Claims 1 and 3-9 are pending in the application. The rejection only of claim 3 is appealed. Please see Appendix A for a copy of the claims under Appeal.

STATUS OF AMENDMENTS

The application was filed on March 12, 2004 and claims the benefit of Provisional Patent Application 60/454,368 filed March 12, 2003. A first official action was mailed 11 July 2005 and Appellant timely responded by Amendment filed 10 October 2005. A second and final Official Action was mailed 20 December 2005. Appellant initiated a telephone interview which failed to resolve the issues.

SUMMARY OF CLAIMED SUBJECT MATTER

The present invention is a shotgun choke 2 with integral wad stopper [see FIG. 1 and 0017 of the published specification] comprising a hollow tubular member screw-inserted onto the muzzle end of an existing shotgun. When installed, the shot pellets pass through an inner channel 20 of the choke 2. [0019] As with conventional chokes, the inner channel 20 is tapered slightly to constrict the pellets passing there through in order to control the shot pattern. [0020] In accordance with the present invention, an integral wad-stopping feature is accomplished by forming a pattern of annular sharp-edged [claim 3] steps from the input end through approximately 2/3 the length of the choke 2, the steps serving to catch and rapidly retard the

cotton wad following the shot. A specific pattern of these steps is disclosed including steps at 1/10" inside the input end, 5/10" inside the input end, 9/10" inside the input end, 1 and 3/10" inside the input end, and 1 and 7/10" inside the input end. Each of the steps 30a-e are raised approximately 0.004" (0.1 mm), and the raised lip of each inward step-projection catches and progressively retards the traveling wad to separate it from the shot. In addition, the transition between each internal step 30a-e along the cylinder is horizontal so that the steps themselves define a progressively smaller internal diameter within the cylinder to contribute to the overall taper.

The above constitutes a concise explanation of the invention defined in the claims involved in the Appeal.

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

There are six categorical issues set forth as follows:

- 1st: Whether claim 3 is anticipated under 35 U.S.C. 102(b) over Dow (2348114)?
- 2d: Whether claim 3 is obvious under 35 U.S.C. 103(a) as being unpatentable over Janecek et al. (2315207) and Catron (2372315)?
- 3d: Whether claims 1, 3-7 and 9 are obvious under 35 U.S.C. 103(a) as being unpatentable over Briley (4386477) and Janecek et al. (2315207)?
- 4th: Whether claims 1, 3-7 and 9 are obvious under 35 U.S.C. 102(b) as being anticipated by Linde (4058925)?

GROUPING OF CLAIMS

The claims include just one claim 3.

Group 1: Claim 3.

The appellant hereby states that the rejected claim within each group stand and fall together.

APPELLANTS' ARGUMENT

1st: The Examiner clearly erred in rejecting claim 3 as being anticipated under 35 U.S.C. 102(b) over Dow (2348114).

Dow discloses a gun stabilizer for venting gases radially outward from a gun barrel, thereby stabilizing the gun. It does this by a series of exhaust apertures formed as rectangular slots exiting the stabilizer. The Examiner erroneously equates this “flash suppressor” with a choke, but they are two different things and Dow (like the previously-cited Warner et al.) is not a choke and the present invention has nothing to do with flash suppressors. The Dow flash suppressor (like the vents in Warner et al.) are “muzzle brakes” to disperse gas. The Examiner equates the present stepwise annular wad-stopping projections with the edges of gas vent openings. However, the Warner et al. gas vents are not annular step-wise projections because they do not extend unbroken around the channel, they are not intended to catch a wad, and as such are not spaced evenly along two-thirds the length of the channel to retard and separate wadding from behind shotgun pellets passing through the channel.

Moreover, the Examiner contends that Dow discloses a shotgun as required by claim 3, but this is incorrect. Dow is for use only with a rifle that shoots a singular bullet. Dow would be inoperative on a shotgun. A shotgun shoots a pattern of pellets. A pattern of shot emerging from a shotgun barrel would spread into the open chamber of Dow and clearly destroy the sharply-angled stabilizer. Dow is for venting gases, not for catching a shotgun wad while patterning the

shot. In addition to the shotgun and functional distinctions, claim 1 is amended herein to structurally distinguish Dow on the basis of the internal channel “running contiguously there through from said coupling end to an output end for channeling shotgun pellets”. The internal channel of Dow is not contiguous and claim 1 is further distinguished.

2d: The Examiner clearly erred in rejecting claim 3 under 35 U.S.C. 103(a) as being unpatentable over Janecek et al. (2315207) and Catron (2372315).

According to the Examiner, Janecek et al. discloses all elements of the invention of claim 1 except for a projectile including a plurality of pellets. In fact, Janecek discloses a single-bullet size reducer in which a bullet passing through is chiseled down by a series of teeth to a smaller caliber. Catron ‘315 discloses an anti-recoil shotgun with no similarities to the present invention other than the fact that it shoots a shotgun cartridge including wadding and pellets. Nevertheless, the Examiner maintains that one skilled in the art would find it obvious to use the caliber-reducer of Janecek et al. with shotgun cartridges as in Catron to provide the choke with wad stopper of the present invention. This is in error for three reasons. First, both of these cited references are non-analogous art. Analogous art is that which is "reasonably pertinent to the particular problem with which the inventor is involved." Heidelberger Druckmaschinen AG v. Hantscho Commercial Prods., Inc., 21 F.3d 1068, 1072, 30 USPQ2d 1377, 1379 (Fed. Cir. 1994). The particular problem pursued in the present inventor is the separation of wad from shot (wad stopper), plus the constriction of the shot pattern of shotgun pellets (choke), in a combined format. One skilled in the art seeking to solve the foregoing problems would have no motivation to look to either of the foregoing patents inasmuch as neither one attempts to separate wad from shot (wad stopper), or constrict the shot pattern of shotgun pellets (choke), let alone in a combined format. Second, any

attempt to fire a shotgun cartridge as in Catron '315 through a bullet size reducer (Janecek) would destroy both, and the combination suggested by the Examiner is inoperative. Third, to establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant." There is no such motivation here. Even if the combination is proper it still fails to show "a plurality of raised annular step-projections comprises a sharp edge disposed toward said coupling end of said tubular member". Accordingly, claim 3 is distinguished.

3d: The Examiner clearly erred in rejecting claim 3 under 35 U.S.C. 103(a) as being unpatentable over Briley (4386477) and Janecek et al. (2315207).

Briley '477 is a shotgun choke, but without any wad stopping feature. One skilled in the art seeking to add such a feature would not look to Janecek's single-bullet size reducer in which a bullet passing through is chiseled down by a series of teeth to a smaller caliber. As above, the combination suggested by the Examiner is inoperative, and there is no motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant." Even if there were the combination fails to teach a "plurality of raised annular step-projections comprises a sharp edge disposed toward said coupling end of said tubular member" as required by claim 3. Accordingly, claim 3 is distinguished.

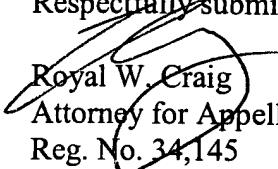
4th: The Examiner clearly erred in rejecting claim 3 under 35 U.S.C. 102(b) as being anticipated by Linde (4058925).

Linde '925 discloses a shotgun choke formed with an internal channel having a stepwise taper, but in the exact opposite direction (it runs toward or becomes more constricted toward the

barrel of the gun). Thus, Linde attempts to gradually spread a shot pattern, not constrict shotgun pellets passing there through as required by claim 3. There is no "plurality of raised annular step-projections comprises a sharp edge disposed toward said coupling end of said tubular member". Moreover, Linde does not and cannot retard and separate wadding from behind said shotgun pellets while passing through the tubular member. Therefore, claim 3 is distinguished

* * * *

For the reasons set forth herein, it is believed that the Examiner erred and that this application clearly and patentably distinguishes over the prior art and is in proper condition for allowance. Reversal is respectfully requested.

Respectfully submitted,

Royal W. Craig
Attorney for Appellant
Reg. No. 34,145

Royal Craig
Ober|Kaler
120 East Baltimore Street
Suite 800
Baltimore, MD 21202
410-347-7303

APPENDIX A: Claims Under Appeal

1. A choke with integral wad stopper for use with an existing shotgun, comprising:
a hollow tubular member having a coupling at one end for concentrically securing said tubular member to a shotgun, said tubular member being defined by an internal channel running contiguously there through from said coupling end to an output end channeling shotgun pellets, said internal channel having a stepwise taper running away from the coupling end to constrict shotgun pellets passing there through;
said stepwise taper being further defined by a plurality of raised annular step-projections spaced evenly along two-thirds a length of said channel and progressively constricting from said coupling end to an output end to retard and separate wadding from behind said shotgun pellets while passing through said tubular member.
2. (Canceled).
3. A choke according to claim 1, wherein each of said plurality of raised annular step-projections comprises a sharp edge disposed toward said coupling end of said tubular member.
4. A choke according to claim 1, wherein each of said plurality of raised annular step-projections comprises a rounded edge disposed toward said coupling end of said tubular member.
5. A choke according to claim 1, wherein each internal step-projection along said defines a smaller internal diameter within said channel.

6. A choke according to claim 5, further comprising a ramp transition between successive internal step-projections along said channel.

7. The choke according to claim 1, wherein said coupling further comprises an external series of screw threads on said hollow tubular member for screw-insertion to the said existing shotgun.

8. The choke according to claim 9, further comprising a textured area along an outer surface of said tubular member to improve gripping while screwing it said tubular member into said existing shotgun.

9. A choke according to claim 1, wherein each of said raised annular step-projections further comprise a ramp transition to a next successive step-projection, thereby defining a constricting stepwise taper running away from said coupling end of the tubular member.

10.(Canceled)

APPENDIX B: Evidence Appendix

There has been no evidence submitted pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132 nor any other evidence entered by the Examiner and relied upon by appellant in the appeal.

APPENDIX C: Related proceedings appendix

As stated above, there are no related appeal proceedings, nor any decisions rendered by a court or the Board in any related appeal proceeding.